FARM AND GARDEN.

Best Food For Young Pigs.

A choice quality of bacon and hams will always sell at high prices. The meat should not be fat on the outside, but of fat and lean mixed evenly through the mass. This is made from young pigs fed on muscle-making food from birth. Skimmed milk is the best food of this kind for pigs, and if mixed with boiled potatoes and barley meal will make six-months-old pigs weigh 150 to 180 pounds, or nine-months-old ones weigh 200 to 250 pounds. Such pigs produce the sweetest meat, which in European markets brings fifty per cent. more than the common pork. Here it is most probable that it would bring easily double the price of distillery slop and corn-fed meat and make a most profitable product for farm dairies or dairy farms. Pigs so fed are never troubled with cholera, trichina, tape-worms, measles, and other common diseases of swine which subject ordinary pork to so much suspicion. It is now a good season for young pigs to be put up for feeding, for fed meat is much better than fatted meat, and the best is that which is made by full consecutive feeding from birth with such food as will produce the mixed fat and lean meat.—*New York Times.*

How to Grow Celery.

A letter in the *Rural New Yorker* says: For lack of proper knowledge of the nature and habits of the celery, most of our farmers, after repeated attempts, have abandoned all efforts toward raising plants or growing it. Almost any farmer who takes pride in supplying his table with seasonable vegetables, will tell you that he has tried to raise plants and has failed, and has purchased plants and set them, but they "had no luck," for they all burned out. Certainly they did; for they demand both coolness and moisture, and got neither. Now, had the intending growers, having made their ground both rich and deep, scooped out a trench two or three inches in depth, and set their plants in it six inches apart; given the ground around them a slight mulch; laid slats across the trench upon which to lay a six-inch wide row of boards, slabs, anything to keep the burning midsummer sun off the plants from ten A. M. to four P. M. (this vertical covering may be removed ss soon as the plants commence to grow) meanwhile keeping the ground continually moist, they would have been gladdened by the sight of such bunches at the end of the season as are seldom seen off the exhibition table, simply because they had moderated the surrounding elements and given the plants a chance to "make themselves at home."

Mistakes of Orchardists.

In a paper read before the Maine Pomological Society, D. P. True says: "One of the most common mistakes made by some of the best orchardists is in having too many varieties, making more work in harvesting and not so desirable. In some cases a number of varieties have been placed in one tree. This is one of the worst mistakes. Different locations require different varieties to get the best results. Big mistakes in the selection of varieties have been made. One of the great questions with the orchardist is, what is the most profitable variety to grow and meet the wants of the present and future market? Mistakes are quite common in the distance of planting out trees. This question is largely one of circumstances. If one has more land than money, it may be best not to set so near. Where land is more costly, trees may be set twice as thick as needed, and when the trees cover the land one-half of them may be removed.

One of the saddest of mistakes is where one puts trees in old worn-out grass fields, and wholly neglects them and expects to raise an orchard. All such cases end in miserable failure. Another mistake is in placing mulch so near the trunk of a tree and in such quantity that it will heat and kill the tree. The writer can testify to the loss of fifty valuable trees killed in this way.

Losses may occur from mice and the borer. Some have had whole orchards destroyed by one or both of these enemies. Careful pruning is necessary, but some have made bad mistakes in this direction; the leaves are to the tree what the lungs are to the body. Extreme cutting should be avoided.

In grafting, orchards in some cases have been nearly ruined by sawing too large limbs or hubs, setting poor scions, grafting limbs in the center of the tree, using poor wax, neglecting to look after the scions after the work has been performed. These have been the cause of much damage. Turning sheep and lambs into a young orchard without taking the precaution to coat the trunks of the trees with manure has caused a big loss in some cases. Oxen and large cattle have proved very fatal to young trees when turned into the orchard. Allowing trees to overbear and break themselves down is a mistake. Thin the fruit, but do not prop the limb.

If one has dwarf pears, as the quince root is fibrous, do not let the ground remain in grass; if you do you will make a mistake. Paying big prices for new varieties has in some cases proved a mistake.

Farm and Garden Notes.

Streaks in butter are frequently occasioned by the use of a poor, coarse article of salt.

Don't think because cows will drink out of a mud puddle it is good enough for them.

A flock master says sheep should not be allowed to usurp the functions of hogs in producing grease, or of trees in producing gum.

Green food is absolutely necessary for the health of the hens in winter, and for this purpose cabbages and turnips have been grown.

Sheep may do without water in summer longer than horses can, but they will not prove so profitable as though a good supply is provided.

It has been observed that potatoes which are most subject to rot grow near the surface, while those which are less so, grow deeper in the soil. It follows that hilling up potatoes is something of a protection against rot.

A strong argument against dishorning is that cattle, deprived of their natural weapons of defence, would be at the mercy of dogs even as sheep are at present. It is easy to answer: "Destroy the dogs," but not so easy to destroy them.

As the winds often throw melon vines out of place it would be best to allow a few weeds or bunches of grass to remain in among the vines, but not at the base, as the runners would throw out tendrils, connect with the weeds and fasten themselves securely in place.

Tomato vines will endure quite an amount of cutting and trimming, and often renew themselves when nearly dead. If the branches be too thick it will be of advantage to cut some of them out from a few vines where a limited amount of early fruit shall be desired.

Immediately after a rain, or as soon as the ground will permit, is the proper time to cultivate the soil, as the grass will then be more easily destroyed by the sun's rays when thrown up, while the stirring of the soil for a few inches will prevent loss of moisture after dry weather shall again set in.

Insects must not be forgotten. Tack pieces of old carpet, bagging or other coarse fabric around the trunks of apple trees. Remove them every ten days and crush the larva or cocoons of the "apple worm" which have hidden under them. Look for the borer in the peach trees and with knife and wire cut and probe it out.

Ducks' eggs are well adapted to hatching in the incubator, as there is but little trouble from infertile eggs. They will stand greater variations of temperature, especially bearing lower temperature very well, and the young ducks are easy to raise by hand, often doing much better so than when allowed to run with a hen or with the old duck.

The smaller the weeds, the easier they are killed. A plant is just as much a weed when just in the seed leaf as if it were large enough to be grubbed up. At this early age, a slight disturbance will kill the sturdiest weed. Use a steel rake with long teeth, keep the teeth sharp and go over all the grounds occupied with crops, with an active man at the handle of the rake, weeds have no chance.

When orchard trees are limbed high there is little risk in giving hogs the run of the orchard, as they will rarely attack the trees unless starved to it. An experiend writer in a Southern paper says: "I deem it best to keep hogs or pigs in the orchard the whole year, except at gathering time. They keep down the rampant growth of weeds, being total destroyers of wild carrots and wild parsnip, the root of which is very poisonous to cows, but hogs are very fond of it. They also rid the orchard of rabbits, snakes and ground hogs (woodchucks), and finally, what better way can you find to distribute their manure?"

In some localities the black smut in corn is often the cause of serious loss. It is worst on land where this crop has been planted several years in succession, showing that the germs live over winter in the soil where they fall. It is a fungus hard to get rid of where it has a foothold. The ears or stalks affected will be found early bursting with sap, and as the spores have not yet ripened so as to become easily detached, these diseased specimens may be removed without much danger of spreading the infection. Later in the season the fungus bursts, and its black dust is scattered by winds, when it gets on the stalks and into the manure pile.

The deutzia ought to be one of the best known of all shrubs, but there are many localities where it is wholly unknown. It has a great many points of merit, and not one objection can be brought up against it. It grows well, blooms with the greatest profusion, is perfectly hardy, and is so beautiful that whoever sees it will be sure to want to plant it. The best known variety is D. gracillis, with single flowers of the purest white, borne in clusters of twenty to fifty at the extremity of each branch, and each main branch has a score of lesser branches. The effect of a large specimen of this shrub when in full bloom, standing by itself on the lawn, can be imagined much better than it can be described. D. crenata flore-pleno has double white flowers, and is very beautiful, but the single variety, spoken of above, is the finest. This is an excellent shrub for cemetery use.

Plant lice on outside vegetation pass the winter as little dark, oblong eggs, usually fastened to the buds. With the warm days of spring these eggs hatch, and so rapidly do the lice increase that soon they are counted by millions. Another characteristic feature of plant lice is their sudden disappearance. This welcome riddance is due, Professor A. J. Cook, entomologist of the Michigan Agricultural College, states, to insect enemies of the plant lice. A remedy suggested by Professor Cook, in a recent bulletin issued, is kerosene and soap mixture. To make this he uses one-fourth pound of hard soap, preferably whale oil soap, and one quart of water. This is heated until the soap is dissolved, when one pint of kerosene oil is added and the whole agitated till a permanent emulsion or mixture is formed. The agitation is easily secured by use of a force pump, pumping the liquid with force back into the vessel holding it. He then adds water so that there shall be kerosene in the proportion of one to fifteen.

Appetite resides more in mind than in matter.

UNDER THE HUDSON RIVER.

THE TUNNEL TO CONNECT NEW YORK AND NEW JERSEY.

Two Parallel Galleries—Power of Imprisoned Air—A Comparison With Great English Tunnels.

The tunnel is not a pleasant place to visit if the visitor goes with the impression that he is to see a new Mammoth Cave full of stalactites and other glittering objects. Down into a well of fifty feet he is dropped like a leaden ball, and when once standing on the bottom he finds himself at the entrance. Two parallel galleries, separated by a few feet, extend out indefinitely under the bed of the river. The south gallery is dark at this time; but as far as the eye can reach along the north gallery twinkling lights are seen. But they only serve to make darkness visible. The visitor meets his first surprise on following the footsteps of his guide into the arched opening. He discovers that he can touch the highest point of the arch with his hand by a slight effort, and that if he is not cautious he will touch it sometimes without any effort whatever, and carry off some of its slime upon his tile. How is the tall smokestack of a locomotive to stand erect in this limited space? This will be likely to be his first inquiry; but a few words of explanation solves the riddle. It is not economy, with the imperfect means at hand, to take all the silt excavated from the headings of the tunnel to the surface. Only enough is lifted from the well to leave a passage way to the working chamber, and the remainder is left in the tunnel until the approaches are completed, and it can be moved by the aid of a steam engine and cars. Each of the two parallel galleries are eighteen feet high under the arch by sixteen feet wide. But only about six feet or seven are left open for a passage, and probably as much as three-fourths of the silt taken from the heading remains in the tunnel.

Following your guide along the straight and narrow way which stretches out into the darkness you discover occasionally what seems to be the ghost of some patient mule dragging at his heels on a very narrow tramway a small load of silt. This is some of the excess which must go to the surface. Suggestive also of the extreme care which must be used in the construction of such a work, you find yourself sometimes almost stumbling over the tripods of surveyors who block the way. It was the boast of the engineers of the Mersey Tunnel that they met under the middle of the river on lines that varied less than one inch from a continuous line. It is expected that an equally scientific result will be reached in the construction of the Hudson River Tunnel. Having got your feet out of the tangle of tripods you pass on; but it would be useless to report all the curious things that a man sees in a passage into this mysterious cavern. The truth is he sees nothing very clearly until finally, when the distance begins to seem interminable, he reaches the first air lock. This looks like the opening to a cemetery vault of reduced size, and the prospect beyond does not seem any more inviting. A heavy brick wall is built solidly across the tunnel with an iron door three or four feet high in the middle, and all beyond seems eternal darkness and silence. As you gaze you feel a sense of respect for the courage of men who day after day will consent to pass through such a seemingly impenetrable barrier. It is a little too suggestive of the life beyond the grave to be quite comfortable.

At this point you may have your first illustration of the power of the imprisoned air demon. The air locks, it should be known, are operated after the precise system of water locks on a canal. Before the outer door can be opened the air in the lock must be let out through a small aperture; and here you may learn some of the capabilities of compressed air. In comparison with the noise made in its escape all the steamers of the North River blowing off their steam in chorus would be only as the whispering of the wind to the roll of thunder. It fills the tunnel with such an excruciating and long continued roar that life seems to be no longer worth living. But it ceases suddenly and the visitor can then pass into the lock. After the door is closed behind him, however, he must wait in outer darkness until the space is again filled with compressed air from the inner chamber. Then the inner door may be opened, and, having been locked through, he will be at liberty to pass onward. But he will move with an additional pressure of thirty-four pounds of air on every square inch of his limbs. If a man is in perfectly sound physical condition he will be able to bear it without difficulty. It is only thirty-four pounds added to the normal pressure of fourteen, which every man experiences without any sense of carrying a load. But if he has any malady of the ear he will be advised to remain where the air is thinner. The workmen who pass eight hours of the twenty-four in the compressed air chamber complain a little of what they call rheumatism, but suffer no serious inconvenience.

For both safety in construction and stability after the work is completed, the plan of the Hudson River Tunnel seems to be superior to the plan of either of the long tunnels under water in England. The Mersey Tunnel is formed by a single arch, nineteen feet high and twenty-six feet wide, both tracks of the railroad being carried through the single opening. The entire weight of the arch rests, therefore, upon its one foundation. But the Hudson River Tunnel will have really the support of double foundations for a superstructure not more than one-fourth heavier than the Mersey Tunnel. The advantage will be readily seen. The work itself will be firmer, while easy communication between the two arches at the distance of each one hundred feet will facilitate operations after the trains have been put in motion. There should be little danger from derailed trains or collisions in such a tunnel, and track walkers should find as much security as in the open air. In the construction of the Mersey and Severn Tunnels, too, the engineers were constantly meeting with accidents. The water repeatedly broke in upon them from above, and they were as often drowned out by springs. But since the first accident, when the engineers were freeing themselves from the tangle of bulkheads and piers, the work on the Hudson River Tunnel has gone forward with absolute exemption from serious mishaps. Compressed air, reinforcing a prudent plan, seems to be a willing and effective servant.

The cost of the work may be estimated now with reasonable certainty, and it will be very much less than the cost of any of the huge bridges finished, under way, or projected across the navigable waters in the vicinity of New York. The Severn tunnel, 4¼ miles long, of which 2¼ miles are under water, cost in all £2,000,000. But the work seems to have been done in a very experimental way, and not in accordance with the best methods. Could the Hudson River Tunnel be completed quickly so as to shorten the interest account it would prove a very inexpensive work.—*New York Sun.*

Actions of Drowning Persons.

"I believe I can tell just by the clutch how many times a drowning person has been down," musingly remarked Edward Horn, of the ferry company, the man who has saved sixty-four lives. "The first trip down they go for you with a firm, decided clutch that means they still know what they are about. The second immersion causes a shaky, uncertain grip, which can be easily broken if you so choose. It is the last time down that the grasp becomes a convulsive, bewildered one, and but few swimmers can save a person after the unfortunate man has descended for the third time. Almost invariably the drowning man on his final journey below the water will seize his preserver by the legs. It seems to be a law of nature and one I cannot account for. It would be easier to save a whole river full of men than one drowning woman. The odd feature of the latter's struggle in the water is that she will seize your hands if she can get hold of one or both of them. A woman will drown quicker than a man. She opens her mouth from the time she first strikes the water and never closes it, and so loses her senses more easily. Yes, I saw one person die of strangulation while we were under water together. His eyes were wonderfully fascinating as he stared helplessly at me. You may not believe it, but they shone like two balls of fire."—*Detroit Tribune.*

Swords and Revolvers.

Although as far back as the civil war in the United States it was proved beyond doubt that cavalry armed with swords had not the remotest chance of success against those armed with revolvers, and although almost every nation in Europe arms its cavalry with the latter weapon, the English War Office, with even more than its usual inaptitude and obstinacy, refuses to furnish our cavalry with this weapon. The revolver is a weapon requiring much practice to be of value, but in the hands of one who has mastered its use it is a terrible weapon. A cowboy of New Mexico is not regarded as a good shot except when riding at full speed along a line of telegraph poles he can put a ball into each as he passes it; and the result is that although the Indians consider themselves more than a match for the regular cavalry, they will fly before a party of cowboys, even if they outnumber them many times, while a hundred cowboys would rightly consider themselves as a match for a whole regiment of regular cavalry. The sword was an admirable weapon in the old days, but a soldier armed with only a sword might be as well unarmed altogether were he to meet one armed with a revolver who was an adept in its use—*London Standard.*

The Chinese in Honolulu.

Honolulu is almost overrun by the Chinese; many of these are merchants of no small pretensions, and one or two are millionaires. One of the prettiest residences in the fashionable part of the city is owned by a Chinaman named A. Fong. His establishment is one of regal and oriental splendor. The natives appear to take very kindly to the Chinamen, the Kanaka women marrying them in preference to white men or men of their own nationality, and in this I think they are fully justified and evince sound discretion. The Chinaman is frugal and thrifty—respects and takes pride in his Kanaka wife, escorts her about and furnishes a good home. The native is too indolent, too improvident or too big an Indian to take his wife into consideration, and the white man abuses and deserts her whenever and as often as it suits his purpose.—*Home Journal.*

The Sardine Crop.

Another crop is pronounced a failure. The domestic canning of sardines, or herring, amounted last year to 150,000 cases or 10,000,000 boxes. So far this year the pack has been almost a failure, on account of the failure of the small fish to run in shore. Indiscriminate fishing during the spawning season, and killing off the old ones in winter, has made a scarcity in our waters, and the Canadian cruisers have prevented our fishermen seeking them anywhere else. The sardine fisheries of France are also proving a failure this year. Some home dealers are said to be making up the deficiency by using cotton seed oil, instead of olive seed oil, as in France and Portugal, and by catching large-sized herring, cutting them up in proper lengths, and branding them as sardines.—*Newport (R. I.) News.*

Big Hidden Cities.

The world is small and round. Everybody says so. Yet how many of the people who repeat this remark ever heard of a city named Aitchi? Precious few, we imagine. Nevertheless, Aitchi is as big a city as New York. It is estimated by a writer in the *Pall Mall Gazette* that Aitchi contains 1,332,050 people. Then how many Bostonians ever dreamed of the existence of Changchoofoo, Sian or Tschantshan-fu? Every one of them has a million inhabitants. Then there are besides Hang-Tscheon, Sartama, Tein-Tchoo and Woo-Chang. Oshkosh is oftener heard of among the people of Christendom than all these four cities together. Still any one of them contains more people than a Chicagoan ever claimed for his town, even when in the presence of a St. Louisan.

Although it is round beyond doubt it is a pretty big world after all.

Another singular fact brought out in the table from which the foregoing figures are quoted is that America, although discovered only 400 years ago, has five cities of more than 400,000 inhabitants, a number greater than any other country, except in Asia.—*Boston Globe.*

The Beard Growing After Death.

An Oakland (Cal.) undertaker cites an instance of a smooth-shaven man's body being exhumed fifteen years after burial and disclosing a snow-white beard that reached almost to the feet and flowed over the sides of the corpse, filling nearly all the space in the coffin. The dead man's widow refused to believe the body was that of her husband until the posthumous beard was shaved off, when she at once recognized the face. The undertaker says:

"If the body is preserved from decay by being buried in an iron, air-tight casket, the beard will not die, but go on growing just so long as corruption is averted. I do not think that the hair of the head ever increases in length, but you know, even in life a man's locks become scanty, and finally disappear altogether, as he grows old, while his age usually serves to make his beard thicker and longer. I can vouch for the vitality of the hair that sprouts from the chin."

The Homely Beaver.

Whatever may be the decision as to the intelligence of the beaver, his countenance, at least, is singularly unprepossessing. A round bullet head—no orbital arch, so that from nose to occiput is almost a straight line; muzzle retreating and blunt with a cleft or "hare" lip; eyes small, oblique and wide apart (the only thing "celestial" about him); ears small, thick and knobby—the whole appearance is one of general stupidity rather than of that high-bred intelligence which we see in the head of the mastiff or the collie. Craniologists and phrenologists would certainly go widely astray were they to attempt to deduce, from the face and head of the beaver, any inference as to the sagacity of the brain lodged in that abnormally thick and misshapen skull.—*Outing.*

A Warning to the Crows.

An old farmer said to our Livermore Falls correspondent: "There's no trouble with crows if you only handle them right. Well, sir, I've got three acres and a half as good corn as there is around here, and they haven't touched it. I'll tell you how I do it. As soon as the crows put in an appearance I shoot as many as I can, and then when my corn gets up I hang their dead bodies around the field, and they don't touch it. No, sir, if the crows see some of their dead companions and haven't tasted of the corn, they never will."—*Lewiston (Me.) Journal.*

Good manners and good morals are sworn friends and firm allies.—*Bartol.*